

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

### Mattson Technology

Corporation for Manufacturing Excellence (Manex)

#### Mattson Technology Hones Competitive Edge

##### Client Profile:

Mattson Technology is a leading supplier of semiconductor wafer processing equipment used in front-end fabrication of integrated circuits. Located in Fremont, California, the company employs less than 250 people.

##### Situation:

Mattson Technology knew that in order to increase profits it would need to reduce costs; raising its prices would mean certain death in the highly competitive semiconductor industry. The company decided to begin a cost reduction initiative using lean enterprise techniques. Lean enterprise is a systematic approach to analyzing the flow of information and materials to identify and eliminate waste while striving for perfection through continuous improvement. Mattson Technology manufacturing engineer Dan Blair conducted some research and decided to organize a kaizen event in the Aspen III wafer processing area. However, the company needed some help getting started. Mr. Blair asked the Corporation for Manufacturing Excellence (Manex), a NIST MEP network affiliate, to help train the assembly workers in lean concepts, reduce set-up time in final test, and teach Mr. Blair how to conduct future kaizen events himself.

##### Solution:

Manex focused directly on the problem at hand by leading Mr. Blair and his team through a value stream mapping (VSM) exercise and training. With VSM, companies literally map out every step in the production process, identifying non-value-added activities and waste along the way, with the goal of making each step as efficient as possible. Mattson Technology's value stream map revealed that the line's changeover process took thirty hours. After examining the map, the team believed this time could be reduced by 20 percent. Manex led a pilot project and training to help the team develop the skills needed to reduce its changeover time, while Mr. Blair gained first-hand knowledge of how to conduct kaizen events at Mattson Technology on his own. The company successfully reduced its changeover time by the estimated 20 percent, which in turn reduced lead times by over 40 percent. Mattson Technology won a multimillion dollar contract thanks to its competitive lead times.

##### Results:

[www.mep.nist.gov](http://www.mep.nist.gov)



NIST is an agency of the U.S. Commerce Department's Technology Administration

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Reduced setup time by 20 percent.

Trained Mr. Blair to lead five more kaizen events on his own.

Achieved a cycle time reduction of over 40 percent.

Won a multimillion dollar order thanks to reduced lead times.

Improved competitive edge.

### **Testimonial:**

"We selected Manex over several other consultants because the people from Manex were willing to help us learn to do it ourselves. The others had a 'we'll do it for you' attitude. Manex trained and coached us and put us on the path. The results showed we made the right choice."

Dan Blair, Manufacturing Engineer